Translation

PCT/CH2003/000186

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference RB-Dett-6wo	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/CH2003/000186	International filing date (*day/month/year*) 24 March 2003 (24.03.2003)	Priority date (*day/month/year*) 17 April 2002 (17.04.2002)
International Patent Classification (IPC) or national classification and IPC B63H 1/08		
Applicant DETTWILER, Hermann		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 14 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
08 November 2003 (08.11.2003)	27 July 2004 (27.07.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/CH2003/000186

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:

pages 9-21, as originally filed

pages _____, filed with the demand

pages 1-8,8a,8b, filed with the letter of 18 June 2004 (18.06.2004)

☒ the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement under Article 19

pages _____, filed with the demand

pages 1-15, filed with the letter of 18 June 2004 (18.06.2004)

☒ the drawings:

pages 1/8-8/8, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

** Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

*** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims	1-15	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: FR-A-639928
D2: DE-A-4216531
D3: DE-A-139759
D4: WO-A-01/01017
D5: US-A-2539436

1. Novelty of independent claim 1

Document D1, which is considered to be the closest prior art, shows and describes the following (the references in parentheses are to D1):

Device for converting a rotational movement into a frustum-defining and spinning movement of a working lever (7) or, conversely, converting a frustum-defining and spinning movement of a working lever into a rotational movement (figures 1 and 2), with a lever bearing (2) mounted for rotation about an axis of rotation (b), in which the working lever is mounted for spin about a spin axis (a); wherein a rotationally lockable sun gear (4) is fitted around the axis of rotation and is coupled via transmission means (5) to a

rotationally fixed planet gear (6) fitted on the working lever, such that when the lever bearing rotates about the axis of rotation the working lever, being mounted in the lever bearing, rotates in the same direction and also spins in the opposite direction about the spin axis because of the planet gear coupled via the transmission means to the sun gear (figure 2).

The subject matter of claim 1 differs from the known device in that it has at least one additional working lever which is mounted for spin about a spin axis in the lever bearing, and on which is mounted a rotationally fixed planet gear which is coupled via transmission means to the sun gear or to another sun gear mounted around the axis of rotation, such that when the lever bearing rotates about the axis of rotation the additional working lever, being mounted in the lever bearing, rotates in the same direction and also spins in the opposite direction about the spin axis because of the planet gear coupled via the transmission means to the sun gear. The at least two working levers are mounted obliquely with clearance from the axis of rotation, and in a criss-cross formation.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

2. Inventive step in independent claim 1

The problem addressed by the present invention can thus be seen as that of designing a movement-converting device which can be used for a variety of applications and has a simple mechanical construction.

The solution proposed in claim 1 involves an inventive step (PCT Article 33(3)) because the combination of features

specified in claim 1 does not appear to be either known from or suggested by the available prior art.

3. Industrial applicability

The subject matter of claim 1 also appears to meet the requirement of PCT Article 33(4) because it would seem that it can be made and used at least in the field of automotive engineering.

4. Dependent claims

Dependent claims 2 to 15 relate to other embodiments of the invention according to claim 1 and also appear to meet the requirements of PCT Article 33(2) to (4).